

bulis albis. Iris rubro-argentea. Pinna dorsalis; pars prima obscure rubra, rivulis paucis subpellucidis, posticè nebula nigra oblonga; pars posterior anticè, propè basin, maculâ intensè sanguineâ notata, alias rubicunda maculis nigricantibus adpersa. Pinna ventralis sanguinea, nebulis pellucidis. Pinna analis sanguinea, maculis paucis nigris. Pinna caudalis rotundata, rubra, maculis nigris in quatuor fascias per radios dispositis ornata. Membrana connectens immaculata."

[To be continued.]

XXVI.—On the genus *Scarabus*, a small group of Pulmo-branchiate Mollusks of the family Auriculacea. By Mr. LOVELL REEVE, A.L.S.

[With a Plate.]

To the Editors of the *Annals of Natural History*.

GENTLEMEN,

HAVING collected together an interesting series of *Scarabi*, as examples of that genus, for the forthcoming number of my 'Conchologia Systematica,' I send you my plate of them accompanied with the following notices, not intended for publication there, which you are at liberty to make use of if you think proper. The fact of there being so few species of this genus yet described, and even these referred to by authors with no little inaccuracy, induces me to think that a few observations, though brief, will be esteemed of some conchological interest. No descriptions are given, nor are any of the localities mentioned; I am unwilling that this paper should be accepted as a monograph, as my friend M. Petit de la Saussaye is zealously employed at this moment in preparing a complete history of the family to which the genus *Scarabus* belongs.

SCARABUS, De Montford. ^t

The genus *Scarabus* is one of the few that I have adopted out of the many proposed by De Montford in his 'Conchyliologie Systématique.' The earliest figure which I am able to trace is one of the *Scarabus Petiverianus* given by Petiver under the title of *Cochlea Bengalensis* in his 'Gazophylacia Naturæ;' another species, the *Scarabus imbrium*, figured by Chemnitz, was then described by Linnæus amongst the *Helices*, and probably supposed to be the same. Bruguière included it in his miscellaneous assemblage of *Bulimi*, and it was removed with others by Lamarck for the formation of the





genus *Auricula*. Lamarck, however, like his predecessors, appears to have referred all the varieties then known to one particular species, *Auricula scarabæus* (*Helix scarabæus*, Linnæus, *Bulinus scarabæus*, Bruguière). Not so De Férussac: a variety which had been figured by Chemnitz was very properly distinguished by this author by the name of *Scarabus plicatus*; he appears indeed to have been the first to appreciate the genus in question. Two other species were then introduced by Lesson in his 'Zoologie de la Coquille,' and we are indebted to this naturalist for establishing the importance of the genus by further demonstrating a difference in their organization and habits. The *Auriculæ* are partially aquatic, and are for the most part found in wet and marshy places on the banks of lakes and rivers, or even on the sea-shore; the *Scarabi*, on the contrary, are inhabitants of a dry soil, located at the roots of trees in the very centre of woods and forests.

The following are eleven species, all of which, with one exception, I have succeeded in identifying.

1. SCARABUS CLAUSUS, Nobis.

Helix clausa, Wagner.

Helix tomogera, Moricand.

Auricula clausa, Michaud.

Tomogerus clausus, Spix.

The aperture of this shell is nearly closed by the strong dentition which is characteristic of the genus. (Plate IV. fig. 1.)

2. SCARABUS TRIGONUS, Troshel, Wiegmann's Archiv, 1840.

This shell, recently described by Dr. Troshel of Berlin, is of very remarkable growth, the last whorl being suddenly contracted to the form of a sharp angle. The species altogether is highly characteristic, and cannot fail to be recognised. (Fig. 2.)

3. SCARABUS PLICATUS, De Férussac, Prodrôme, p. 101; Chemn.

Conch., vol. ix. pl. 136. f. 1252 and 1253.

Helix scarabæus, var. Chemnitz.

Auricula plicata, Deshayes.

Chemnitz's figure of this species is cited as a variety both of the *Helix scarabæus* of Linnæus, and the *Cochlea Bengalensis* of Petiver. It may be distinguished however from both by the angular direction of the last whorl, though it is far less characteristic than in the *Scarabus trigonus*. (Fig. 3.)

4. SCARABUS UNDATUS, Lesson, Voyage de la Coquille, Zoologie, vol. ii. p. 336. pl. 10. f. 6.

Auricula scarabæus, var. Deshayes.

I only know of two specimens of this shell, both sufficiently distinguished by the waved lines which irregularly cross each other on the back. I believe this character exists only in the epidermis, which is unusually thick, but am satisfied of the identity of the species by a distinct peculiarity in the general formation of the shell. Deshayes